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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/789,755 | 02/27/2004 | Koji Yamabuchi | 59901 CIP (70551) | 9588 |

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| EXAMINER | |
|---|---|
| VU, PHU | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2871 | |

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/789,755 | YAMABUCHI | |
| | Examiner | Art Unit | |
| | Phu Vu | 2871 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *14-21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/7/05, 10/26/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, with respect to claims 6-13 have been fully considered and are persuasive. The previous rejection of claims 6-13 has been withdrawn however new grounds of rejection made in view of Sasaki are presented below.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki US 20010040667.**

**Regarding claim 6,** Sasaki teaches a method of fabricating a liquid crystal panel, comprising the steps of: placing a sealing agent on a surface of a first substrate in a form of an enclosure (fig. 2 element 4); introducing liquid crystal (3) on said first substrate in a region enclosed by said sealing agent or on a second substrate in a region corresponding to said region located on said first substrate enclosed by said sealing agent; sticking said first substrate and said second substrate together to form a substrate formed of said first substrate and said second substrate [0030]; sticking a polarizing plate on at least one of said first substrate and said second substrate [0064];

and dividing said substrate to have a geometry providing a plurality of liquid crystal panels [0064].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 1-5 are rejected under 35 U.S.C. 102(b) as being unpatentable over Poensgen et al US Patent No. 4061418 and further in view of Takeshi Japanese Publication No. 54-0939951.**

**Regarding claim 1,** Poensgen teaches a liquid crystal panel comprising a first substrate (cov. figure element 2); a second substrate (1) overlapping the first substrate with a liquid crystal layer (6) disposed between the first and second substrate and said second substrate to surround said liquid crystal layer and a polarizing plate (7) stuck on at least one of said first and second substrates at a surface opposite said liquid crystal layer, said polarizing plate having an end receding from an end of said one substrate. The reference does not specifically recite "a sealing agent is applied to one of said first substrate or second substrate so as continuously surround an entire perimeter of said liquid crystal layer however, the reference teaches the liquid crystal layer is "hermetically sealed" (see abstract). The American Heritage College dictionary defines hermetic as "completely sealed especially against the escape of entry of air." The reference discloses seal member 5 as being the only seal member, therefore the

limitation of continuously surrounding the liquid crystal layer must be inherent or the structure would otherwise not form a hermetically sealed structure. The Poensgen fails to disclose limitation of the polarizing plate having a surface with an inclination at the end. However Takeshi discloses use of a triangular shaped blade used to cut a polarizing plate with that results in an end surface that is inclined that improves improving cutting quality, workability and yield (see abstract and fig. 1 element 1 (blade) and fig. 1 element 11 (polarizer)) which is attributed to the blade choice and cutting process. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use of a triangular shaped blade used precut a polarizing plate such that an end surface is inclined that improves cutting quality, workability and yield.

**Regarding claim 2,** Poensgen teaches a liquid crystal panel comprising: a first substrate (cover figure element 2); a second substrate (1) overlapping said first substrate with a liquid crystal layer (6) posed there between; a sealing agent (15) disposed between said first substrate and said second substrate to surround said liquid crystal layer; and a polarizing plate stuck (7) on at least one of said first and second substrates at a surface opposite said liquid crystal layer, wherein said polarizing plate has an end receding from an end of said one substrate, and at said polarizing plate's end, glue bonding (13) said polarizing plate and said substrate together is exposed and extends in a direction.

**Regarding claim 3,** the reference teaches liquid crystal panel, wherein said sealing agent continuously surrounds an entire perimeter of said liquid crystal layer (see abstract "hermetically sealed" ).

**Regarding claim 4,** the reference teaches the first substrate (fig. 1 element 2) has a terminal portion protruding outer than said second substrate, said first substrate has a surface with said polarizing plate stuck thereon (8), and said polarizing plate also extends on said terminal portion (left and right edges of element 2).

**Regarding claim 5,** the reference teaches the first substrate has a terminal portion (cover fig. left and right edges of element 2) projecting outer than said second substrate, said first substrate at a display area (between element 5 on both ends) and said terminal portion has a polarizing plate stuck thereon (8), and said first substrate between said display area and said terminal portion has a region free of the polarizing plate (edge portions of element 2).

**Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Takeshi Japanese Publication No. 54-030041 (as cited in applicant's IDS).**

**Regarding claim 7,** Terada discloses all the limitations the claim except a attaching a polarizing plate prior to dividing and partially removing portions to allow the substrate to have a surface exposed and first substrate and second substrate divided. Takeshi discloses improving cutting quality of an outer peripheral portion together with the workabilitly and yield by cutting at an exterior portion (see abstract and fig. 1 element 1 (blade) and fig. 1 element 11 (polarizer)) that is performed prior to division.

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to attach a polarizer and partially remove portions the polarizer to allow the substrate to have a surface exposed and first substrate and second substrate prior to division to improve workability and yield in liquid crystal panels.

**Claims 8 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Takeshi in view of Nagata et al Japanese Patent No. 11-338376A.**

**Regarding claims 8 - 10,** Sasaki in view of Takeshi discloses all the limitations of claims 8 –10 except inspection of more than one liquid crystal cell via an interconnection electrically connected to each liquid crystal for inspection before the step of stick or after the step of sticking. Nagata discloses inspection prior to dividing the substrate (see [0350-0351] of translation) which allows inspection of multiple liquid crystal panel thereby improving inspection efficiency. Sasaki in view of Takeshi teach attaching polarizers prior to a division step. While claims 9 and 10 relate to performing inspection after overlaying and before sticking, or after sticking the MPEP 2144.04 C states "selection of any order of performing process steps is a prima facie case of obviousness in the absence of new or unexpected results." Applicant's specification has not provided any indication that inspection at either of these times would provide new or unexpected results. Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to perform inspection prior to dividing the substrates to gain improved inspection efficiency. Inspection prior to and following sticking also gains these benefits.

**Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Shimamune et al US Patent No 5684556.**

**Regarding claims 11 and 12,** Sasaki discloses all the limitations of claims 11 and 12 except exposing a terminal portion provided at one of first and second substrates by dividing and partially removing one of said substrates. Shimamune discloses exposing a terminal portion by dividing and partially removing one of the substrates as a well-known or conventional process to provide terminal portions, which provide externally connecting electrodes (see fig. 3 step S3 and column 2 lines 15-20 and column 2 lines 20-55. Conventionality has associated benefits of proven effectiveness and well-developed application. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to partially remove one of the substrates to expose a terminal portion because it is provides a proven and well developed method to provide an external connection.

**Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Shimamune and further in view of Stefanov et al US Patent No. 5963289**

**Regarding claim 13,** Sasaki and Shimamune disclose all the limitations of the claim except exposing performed in the step of overlaying by displacing the substrates from each other. Stefanov discloses displacement of substrates from one another to provide interconnect redundancy for an ITO plate or a repair site for electrical contact to the ITO plane. Therefore, at the time of the invention, it would have been obvious to

one of ordinary skill in the art to diplace the substrates to provide interconnect redundancy for an ITO plate or a repair site for electrical contact to the ITO plane.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu
Examiner
AU 2871

ANDREW SCHECHTER
PRIMARY EXAMINER